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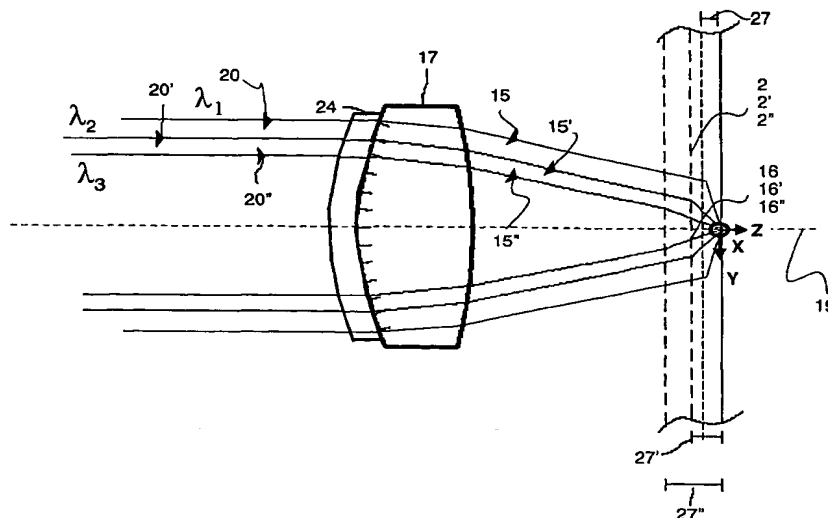
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(54) Title: OPTICAL SCANNING DEVICE



(57) Abstract: An optical device (1) for scanning three information layers (2, 2', 2'') by means of three radiation beams (20, 20', 20'') having three respective wavelengths ($\lambda_1, \lambda_2, \lambda_3$) and polarizations (p_1, p_2, p_3), wherein the three wavelengths substantially differ from each other. The device comprises a radiation source (7) for emitting the three radiation beams, an objective lens system (8) for converging the three radiation beams beam on the positions of the three respective information layers, and a phase structure (24) having a non-periodic stepped profile. Furthermore, the structure includes birefringent material sensitive to the three polarizations and the stepped profile is designed for introducing three wavefront modifications ($\Delta W_1, \Delta W_2, \Delta W_3$) for the three wavelengths, respectively, wherein one of the wavefront modifications is of a type different from the others and one of the polarizations differs from the others.



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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 2001/050895 A1 (LEE MAN-HYUNG) 13 December 2001 (2001-12-13)	1-5, 7, 8, 10, 11, 13-15
Y	paragraphs '0004!', '0020!'-'0032!', '0044!'-'0068!; figures 4-9	12, 16
A	---	6, 9
X	EP 1 126 291 A (ASAHI GLASS CO LTD) 22 August 2001 (2001-08-22) paragraphs '0002!'-'0026!', '0080!'-'0084!; figure 8 --- -/--	15

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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Y	HENDRIKS B H W ET AL: "Application of nonperiodic phase structures in optical systems" APPLIED OPTICS, 10 DEC. 2001, OPT. SOC. AMERICA, USA, vol. 40, no. 35, pages 6548-6560, XP002264634 ISSN: 0003-6935 cited in the application	12,16
A	figures 1,6	1-11, 13-15
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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